BEST OF DDW 2006

Highlights From Digestive Disease Week and the 107th Annual Meeting of the American Gastroenterological Association Institute, May 20–25, 2006, Los Angeles, California

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At this year's Digestive Disease Week, important announcements were made and clinical advances discussed in every gastroenterologic specialty. Here, *Gastroenterology & Hepatology* summarizes some of the most important presentations, with expert commentary from opinion leaders in each area.

Presentations in GERD

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Abstract 788 DX–pH Measurement System: A Sensitive Device for Detecting Liquid and Aerosolized Supraesophageal Gastric Reflux

Dr. Gregory Weiner of Chula Vista, Calif., and his associates from Restech Corporation in Poway, Calif., and the San Diego State University observed that despite recognition of multiple manifestations of supraesophageal gastric reflux (SEGR), characterization, identification, and response to therapy have evaded understanding due to lack of a suitable detection device. To address this need, Restech developed the Dx minimally invasive catheter with ionic flow sensor to measure pH in liquid or aerosolized droplets at the site of the posterior oropharynx. The authors tested the device's sensitivity using a standard, 24-hour triple sensor pH catheter (24pH) for verification. Patients in a gastroenterologic practice with chronic symptoms likely due to SEGR and off reflux medication for 4–7 days underwent 24pH with two esophageal and one pharyngeal sensor (Sandhill PHI10-V) positioned with a lower esophageal sphincter (LES) indicator at 5 cm above the LES, an indicator 5 cm below the upper esophageal sphincter (UES), and one 1 cm above the UES. The 1.5 mm nasopharyngeal catheter was placed at the oropharynx behind the uvula, above the patients' discomfort position. Tracings from all four synchronized pH inputs and patient diary were analyzed graphically on a single screen. SEGR was defined as rapid pH drops at the Dx sensor, greater than 3 standard deviations from a 60 second baseline, sequential to drops in pH to less than 4 as measured by 24h pH sensors, then classified as acid pH or weakly acid pH.

A total of 15 patients, at an average age of 57.5 years, with symptoms ranging from cough to tooth enamel loss, sleep apnea, and asthma, were tested. Four had normal 24pH. In 10 patients, 48 Dx-detected SEGR events occurred, with gradual return to baseline and synchronous to esophageal pH drops. All 5 Dx-negative patients had normal 24pH in the esophagus. The authors concluded that SEGR exists in the oropharynx and is detectable with the Dx device; there is a gradient of increasing pH from the esophagus to the oropharynx, the latter rarely less than 4; redefinition of significant pH events above the UES as percentage or more than 3 times the standard deviation in pH drops merits consideration; and clinical management may be influenced by Dx results.

JR These authors have developed a very small device, which can be attached directly above the uvula, causing no patient discomfort. They believe it provides sensitivity superior to that of established detectors of reflux into the hypopharyngeal area. As Dr. Michael Vaezi of Vanderbilt University has stated, we are desperately searching for ways to identify these patients, aside from therapeutic trial. This device has the potential to allow for this and its utility needs to be further explored beyond this anecdotal, gross assessment. The other important finding of this study is that once acidic content enters the hypopharyngeal area, pH is often no longer below 4 but in the range of 5.